FILE NOTATIONS

Entered in N I D File	✓	Checked by Chief	
Entered On S R Sheet		Copy N I D to Field Office	
Location Map Pinned		Approval Letter	
Card Indexed	✓	Disapproval Letter	
I W R for State or Fee Land			

COMPLETION DATA:

Date Well Completed 7/7/78 — Location Inspected

OW ... WW ... TA ✓ — Bond released State of Fee Land

GW ... OS ... PA ✓

LOGS FILED

Driller's Log ✓

Electric Logs (No.)

E ... I ... E-I ... GR ... GR-N ... Micro ...

Lat ... Mi-L ... Sonic ... Others ...

Plugged ● Abandoned - 7/●/78

(May 1963)

(Other instructions on reverse side)

Budget Bureau No. 42-R1425.

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U-14258

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Federal

9. WELL NO.: #5 Federal 258

10. FIELD AND POOL, OR WILDCAT: New Field

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 8, T18S - R24E

12. COUNTY OR PARISH: Grand

13. STATE: Utah

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [ ]x GAS WELL [X] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [X]

2. NAME OF OPERATOR: THE ANSCHUTZ CORPORATION, INC.

3. ADDRESS OF OPERATOR: 1110 Denver Club Building, Denver, Colorado

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2035' FEL 653' FNL nwnE
At proposed prod. zone: Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 8 miles NW of Harley Dome, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 653'

16. NO. OF ACRES IN LEASE: 1919.52

17. NO. OF ACRES ASSIGNED TO THIS WELL: 80 acres

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.:

19. PROPOSED DEPTH: 4220'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5147 GR 5157 KB

22. APPROX. DATE WORK WILL START*: July 15, 1977

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	32.00#	200'	180 sacks
7 7/8"	4 1/2"	9.50#	4500'	200 sacks

- To Drill 9 3/4" hole and set 7 5/8" surface casing
- Log BOP tests daily while drilling with air or air mist
- Run electric logs and set casing, if productive
- THIS IS A CONSOLIDATED REPORT TO COVER FIVE (5) DEVELOPMENT WELLS

EXHIBITS ATTACHED INCLUDE

(1) Location and elevation plat on each of the 5 wells (2) A Ten-Point Compliance
(3) Blow out preventer diagram for all wells (4) Cut and fill section and pad layout
for each well (5) A central tank battery and flow line layout (6) Map into location
(7) Multipoint Compliance program

Approval notice - Division of Oil, Gas, Mining - Utah

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED: George Fentress [signature] TITLE: Agent for The Anschutz Corporation DATE: June 1, 1977

(This space for Federal or State office use)

PERMIT NO. ______ APPROVAL DATE ______

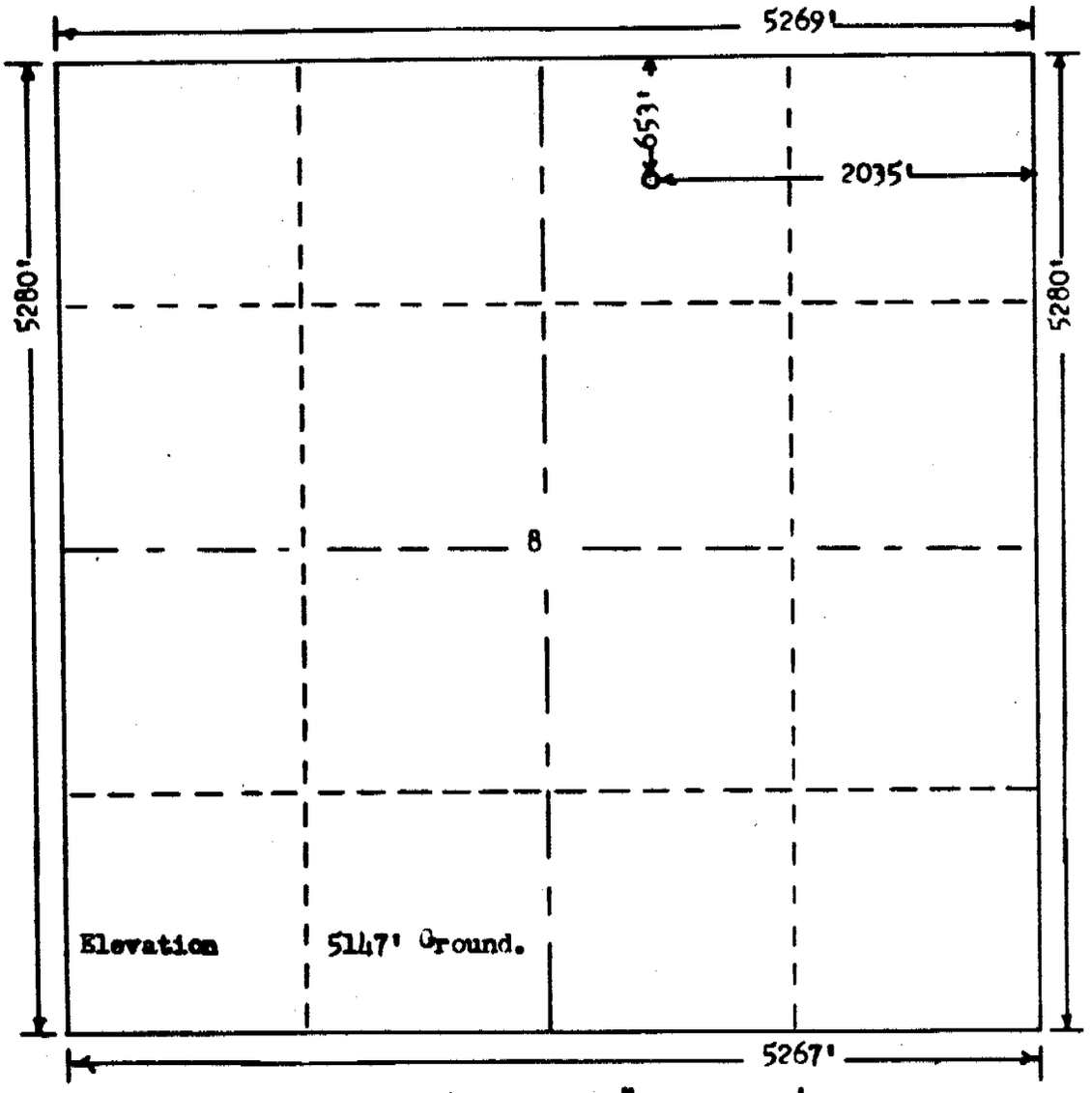
APPROVED BY (ORIG. SGD.) E. W. GUYNN TITLE DISTRICT ENGINEER DATE JUL 1_ 1977

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

FORM F-106

EXHIBIT "A - 4"
ELEVATION - LOCATION PLAT
ANSCHUTZ #5 - Federal - 258



Scale... 1" = 1000'

Powers Elevation Company, Inc. of Denver, Colorado has in accordance with a request from George Fentress for Anschutz Corporation determined the location of #5 Federal-258 to be 653'FN & 2035'FE Section 8 Township 18 S. Range 24 E. of the Salt Lake Principal Meridian Grand County, Utah

I hereby certify that this plat is an accurate representation of a correct survey showing the location of #5 Federal-258

Date: 5-13-77

T Rolen

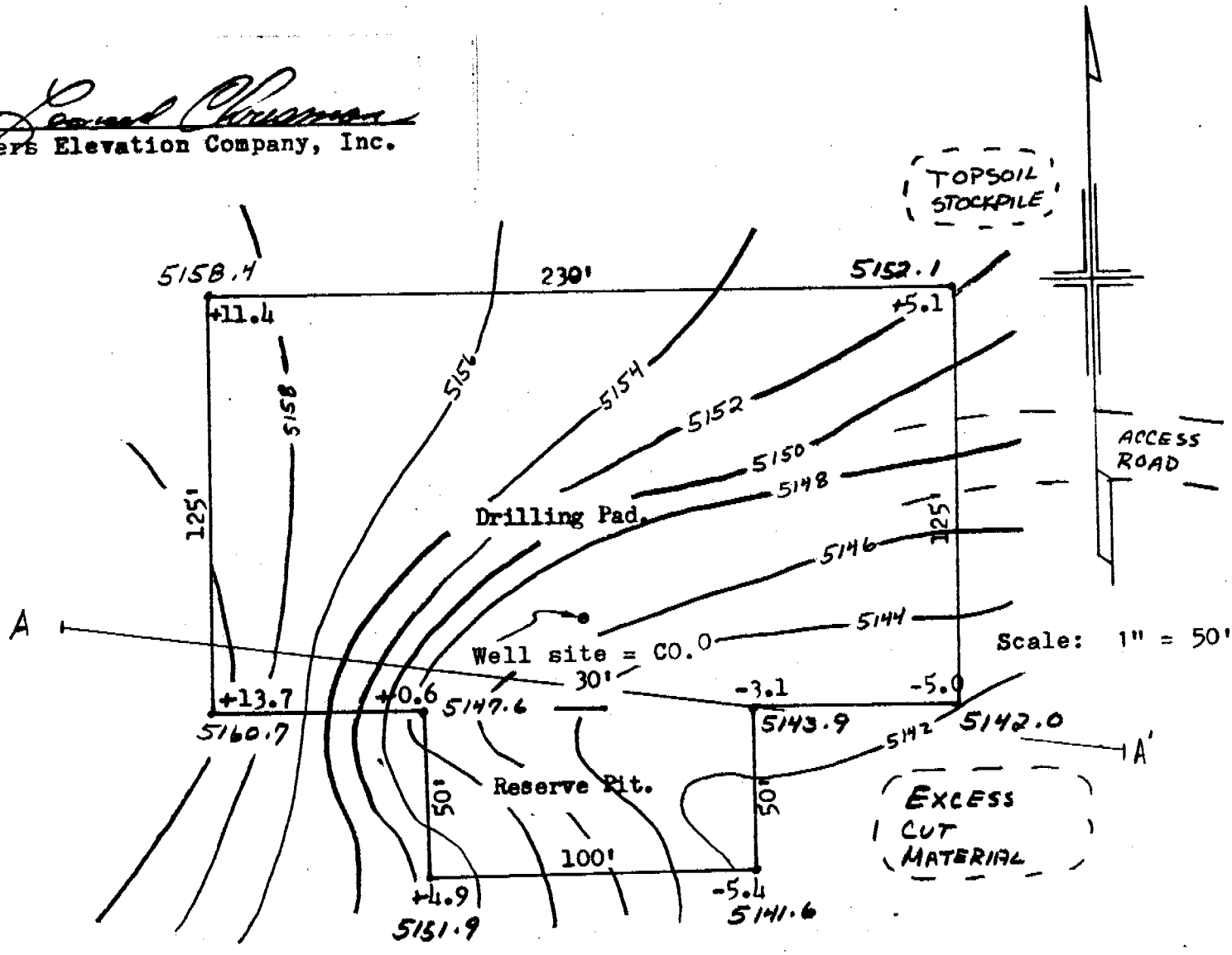
Licensed Land Surveyor No. 2711
State of Utah

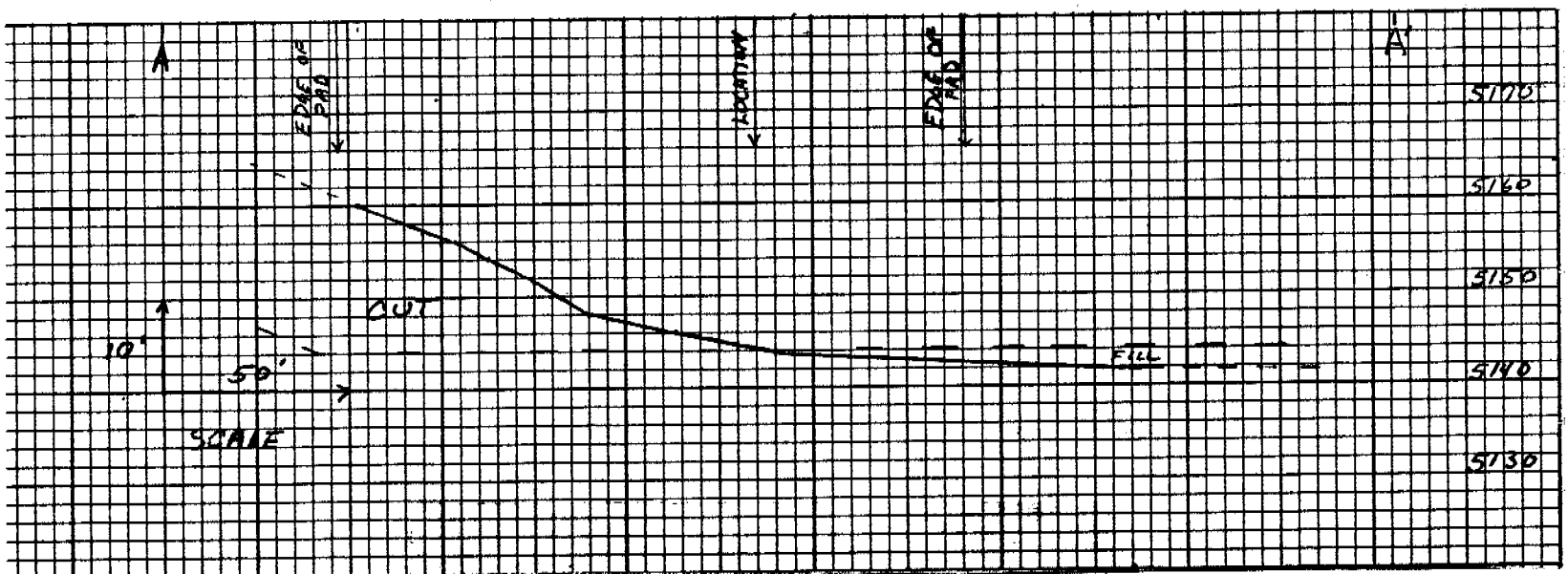
TOPOGRAPHIC MAP

EXHIBIT "G-4"
Drill Pad Contours &
Cut-Fill Section

Anschutz Corporation
#5 Federal-258
653'FN & 2035'FE Sec 8-18S-24E
Grand County Utah.

by: Leonard Thurman
Powers Elevation Company, Inc.





Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U-14258

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ OTHER — SINGLE ZONE ☐ MULTIPLE ZONE ☒

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Federal

2. NAME OF OPERATOR: THE ANSCHUTZ CORPORATION, INC.

9. WELL NO.: #5 Federal 258

3. ADDRESS OF OPERATOR: 1110 Denver Club Building, Denver, Colorado

10. FIELD AND POOL, OR WILDCAT: New Field

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface: 2035' FEL 653' FNL

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 8, T18S - R24E

At proposed prod. zone: Same

RECEIVED JUN 3 1977 DIVISION OF OIL, GAS, & MINING

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 8 miles NW of Harley Dome, Utah

12. COUNTY OR PARISH: Grand

13. STATE: Utah

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7 7/8"	4 1/2"	9.50#	4500'	200 sacks

1. To Drill 9 3/4" hole and set 7 5/8" surface casing
2. Log BOP tests daily while drilling with air or air mist
3. Run electric logs and set casing, if productive
4. THIS IS A CONSOLIDATED REPORT TO COVER FIVE (5) DEVELOPMENT WELLS

EXHIBITS ATTACHED INCLUDE

(1) Location and elevation plat on each of the 5 wells (2) A Ten-Point Compliance (3) Blow out preventer diagram for all wells (4) Cut and fill section and pad layout for each well (5) A central tank battery and flow line layout (6) Map into location (7) Multipoint Compliance program

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED George Fentress TITLE Agent for The Anschutz Corporation DATE June 1, 1977

(This space for Federal or State office use)

PERMIT NO. 43-019-30364 APPROVAL DATE

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

ENVIRONMENTAL ENGINEERING COMPANY
Professional Engineering Services

P. O. Box 3341
Casper, Wyoming 82601
Phone (307) 234-6186

1645 Court Place
Suite 229
Denver, Colorado 80202
Phone (303) 892-1506

June 1, 1977

Mr. Edgar W. Guynn
U. S. Geological Survey
8440 Federal Building
Salt Lake City, Utah 84138

RE: Filing NTL-6 and APD
The Anschutz Corporation
#2 Federal 258
#3 Federal 258
#4 Federal 258
#5 Federal 258
#1 Federal 350
Grand County, Utah

Dear Mr. Guynn:

Enclosed are three copies of the filing for the five development wells of the Anschutz Corporation. Please forward one copy to the BLM and advise us when it would be convenient to make on-site inspections.

Very truly yours,

George H. Fentress
Agent Consultant for
The Anschutz Corporation, Inc.

GHF/bk
Encl.

cc: Mr. Phil Herrington

EXHIBIT "B"

TEN-POINT COMPLIANCE PROGRAM
OF NTL-6 APPROVAL OF OPERATIONS

Attached to Form 9-331C
The Anschutz Corporation

(1) #2 - Federal - 258
630' FSL 660' FEL
Sec. 5 - T18S - R24E

(2) #3 -Federal - 258
1887' FNL 695' FEL
Sec. 5 - T18S - R24E

(3) #4 - Federal - 258
610' FNL 1910' FEL
Sec. 5 - T18S - R24E

(4) #5 - Federal - 258
653' FNL 2035' FEL
Sec. 8 - T18S - R24E

(5) #1 - Federal - 350
2054' FSL 673' FWL
Sec. 4 - T18S - R24E

All in Grand County, Utah

1. The Geologic Surface Formation

The five development wells are all situated on the northwestern edge of the Grand Valley. The surface consists of alluvial and colluvial deposits derived from the sedimentary formations which form the steep faces of the Book Cliffs. The surface formation is the dark gray Mancos Shale and the Cliffs are formed from resistant Cretaceous and Tertiary sandstones.

2. Estimated Important Geologic Markers

See Table I

3. Estimated Depths of Anticipated Water, Oil, Gas or Minerals

See Table II

4. The Proposed Casing Program

The casing program for all five wells is identical. 200 feet of 8 5/8" new K-55, 24# casing will be set in a 12 1/4" surface hole. This will be set with 180 sacks of Class G cement with return flow to the surface.

4. The Proposed Casing Program cont'd

In the event of production, each well will set new 4 1/2", 9.5# production casing in a 7 7/8" hole at T.D. This will be set with 200 sacks of 50-50 Posmix with 2% gel and 2% $Cacl_2$.

5. The Operator's Minimum Specifications for Pressure Control

Exhibit "C" is a schematic diagram of the blowout preventer equipment planned for used in these wells. The BOP's will be hydraulically tested to the full working pressure after nippling up and after any use under pressure. Pipe rams will be operationally checked each 24 hour period. The blind rams and annula preventer will be checked each time pipe is pulled out of the hole. All testings will be recorded in the daily drill sheets. Accessories to BOP's include upper and lower kelly cock, floor safety valve, drill string BOP and choke manifold with pressure rating equivalent to the BOP stack.

6. The Type and Characteristics of Proposed Muds

(a) It is planned that each well will be drilled with air from the base of the surface casing to the total depth. If air is abandoned, then (b) and (c) will be used.

(b) If air drilling is abandoned, then the hole will be drilled with native muds to 4000'.

(c) From 4000' to TD the hole will be drilled with Chem-Gel with the mud weighted as necessary for good hole conditions. The water loss will be kept from 8 to 12cc and the viscosity between 35 and 45.

7. The Auxilliary Equipment to be Used

(a) A kelly cock will be kept in the string at all times.
(b) A float will be used at the bit at all times.
(c) A gas detecting device will monitor the system.
(d) A stabbing valve will be on the floor to be stabbed into the drill pipe when kelly cock is not in the string.

8. The Testing, Logging, and Coring Programs

(a) All valid shows will be tested. The objective for each well is the Morrison Formation.

(b) If air drilled, an induction log will be run from TD to the base of the surface casing and gamma ray, compensated formation density, and sidewall neutron porosity logs will be run at the minimum footage. If the hole is fluid filled, a dual induction log will be run from TD to the base of the surface casing and gamma ray, compensated formation density, and compensated neutron logs will run at the minimum footage.

(c) No coring is anticipated.

9. Any Anticipated Abnormal Pressures or Temperatures Expected

No abnormal pressures or temperatures have been noted or reported in the wells drilled in this area to these depths. No hydrogen sulphide or other hazardous gases or fluids have been found reported or known to exist at these depths in this area.

10. The Anticipated Starting Date and Duration of Operations

The anticipated starting date is set for July 1, 1977, or as soon as possible after examination of the surface and approval of all drilling requirements.

It is anticipated that each well should be completed within 20 days after spudding the well.

TABLE I

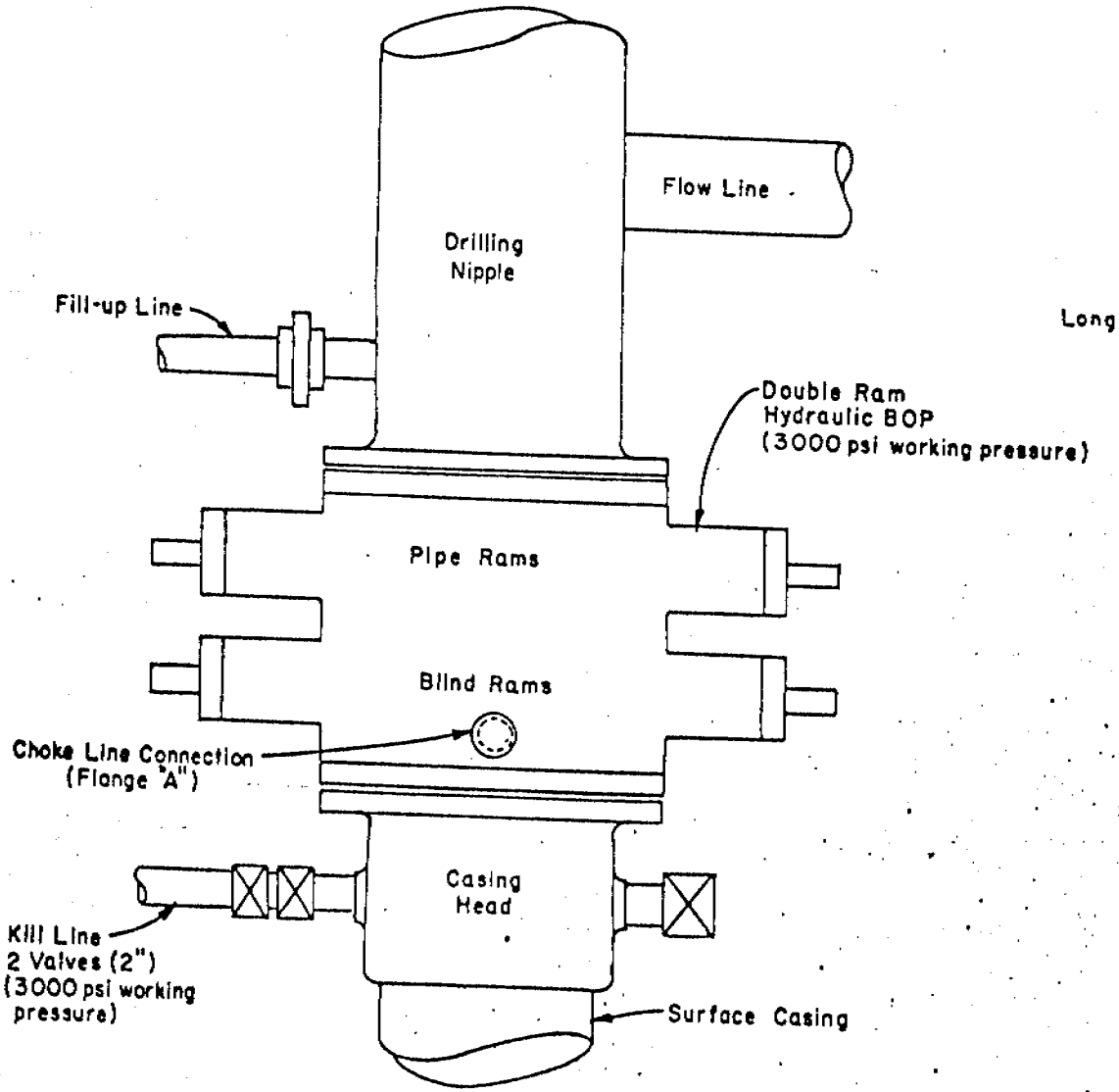
ESTIMATED IMPORTANT GEOLOGIC MARKERS

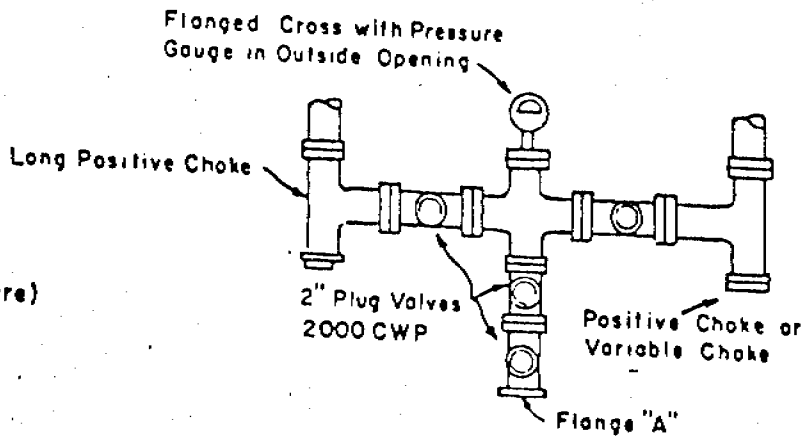
Formation	#2 Fed 258		#3 Fed 258		#4 Fed 258		#5 Fed 258		#1 Fed 350	
	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation	Depth	Elevation
Mancos	78'	+5090'	352'	+4903'	486'	+4690'	194'	+4963'	50'	+5113'
Dakota	3783'	+1385'	4055'	+1200'	4190'	+986'	3897'	+1260'	3751'	+1410'
Cedar Mountain	3903'	+1265'	4180'	+1075'	4315'	+861'	4022'	+1135	3871'	+1290'
Morrison	3998'	+1170	4275'	+980'	4411'	+765'	4118'	+1039'	3961'	+1200'
E.T.D.	4100'	+1068'	4375'	+880'	4515'	+661'	4220'	+927'	4065'	+1096'

TABLE II

ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS

Formation and Anticipated Fluid	#2 Fed 258	#3 Fed 258	#4 Fed 258	#5 Fed 258	#1 Fed 350
Dakota Gas and/or oil or water	3783'	4055'	4190'	3897'	3751'
Cedar Mountain Gas and/or water	3903'	4180'	4315'	4022'	3871'
Morrison Gas and/or water	3998'	4275'	4411'	4118'	3961'





PLAN VIEW - CHOKE MANIFOLD

EXHIBIT "C"
BLOWOUT PREVENTER DIAGRAM
The Anschutz Corporation
#2 Federal 258
#3 Federal 258
#4 Federal 258
#5 Federal 258
#1 Federal 350

EXHIBIT "D"
MULTIPOINT REQUIREMENTS TO ACCOMPANY APD

Attached to Form 9-331C
The Anschutz Corporation

(1) #2 Federal 258
630' FSL - 660' FEL
Sec. 5, T18S, R24E

(2) #3 Federal 258
1887' FNL - 695' FEL
Sec. 5,T 18S, R24E

(3) #4 Federal 258
610" FNL - 1910' FEL
Sec 5, T18S, R24E

(4) #5 Federal 258
653' FNL - 2035' FEL
Sec. 8, T18S, R24E

(5) #1 Federal 350
2054' FSL - 673' FWL
Sec. 4, T18S, R24E

All in Grand County, Utah

1. Existing Roads

A. EXHIBIT "A", 1 - 5, are the proposed well sites as staked by Powers Elevation Service, and the ground elevations are shown thereon.

B. EXHIBIT "E" is a color coded map prepared from the Southeastern Central Utah Map No. 2 of the Utah Travel Council, and was used because general features show more prominantly than other maps found. One travels 40 miles on I-70 from Thompson, Utah, east to the Harley Dome exit, then proceed north and east on U.S. 6 and 50. At the Westwater Unit turnoff, it is approximately 11 miles northwest on gravel and dirt road to the five locations. All locations are within 1,000 feet of this road, which can be used in most weather conditions. The red color in Exhibit "E" indicates this good, passable road.

C. EXHIBIT "F" is prepared from 7 1/2' U.S.G.S. Dry Canyon Topographic Quadrangle. The red color shows the existing, usable road and ranch buildings in the area. The green color indicates the roads which must be built to provide access to each location.

D. This is not an exploratory well.

E. These are development wells around Anschutz's Discovery well #1 - FED - 258. All known existing roads in the area are shown in Exhibit "F". Generally, all roads are gravel or hard packed dirt.

F. There is no plan to improve or maintain existing roads.

2. Planned Access Roads

(1), (2), (3), (4), (5). The short access roads are shown in green in Exhibit "F". These roads need not exceed 16 feet, the maximum grades will be less than 1%, and there will be no need for turnouts, drainage design, culverts, or cut and fill.

(6) No surfacing materials will be needed during drilling operations. If production is obtained, the access roads will be surfaced with local stream gravel.

(7) No gates, fence cuts, or cattle guards are needed.

(8) The access roads will all be less than 1,000' in length and therefore do not need to be center line flagged.

3. Location of Existing Wells

A one mile radius from each of the proposed development wells is indicated in Exhibit "F". All known wells and their current status are indicated thereon.

(1) No known water wells exist in the area.

(2) As shown in Exhibit "F" there are no dry holes within the one mile radius. The closest dry holes are in Sec. 10 and 16 and in Sec. 29, T17S-R24E.

(3), (4), (5) There are no known temporarily abandoned, disposal or drilling wells in the area.

3. Location of Existing Wells Cont'd

(6) The only producing well in this area is the Anschutz Corporation's Discovery well #1-Fed-258, as shown in Exhibit "F".

(7), (8), (9). There are no known shut-in, injection, or observation wells in this area.

4. Location of Existing and/or Proposed Facilities

Exhibit "F" is color-coded with blue, in addition to red for the access and existing roads. The blue represents 2 3/8" flow lines, gas or oil, that will follow the used roads to the central tank battery at #1-Fed-258. Flow lines will not be buried, except at the central battery, unless allowed otherwise.

Exhibit "I" is an example of present existing tank battery for #1-Fed-258 and proposed additional facilities, if needed.

5. Location and Type of Water Supply

Water, if needed, will be obtained from flowing water in Westwater Creek.

6. Construction Materials

A,B,C,D. No construction materials are needed for drilling operations. The sand, gravel and rock located in situ are adequate for any construction necessary in connection with either dry or producing wells. There are no access routes needed for crossing Indian land. The access routes for crossing Federal land are shown in green in Exhibit "F".

7. Handling Waste Disposals

For all five wells:

(1) Drill cuttings will be buried in the reserve pit when covered.

7. Handling Waste Disposals Cont'd

(2) Drilling fluids will also be handled in the reserve pit.

(3) Any fluids produced while drill stem testing or producing or other testing will be collected in a test tank set near the pipe baskets or near the well head. Any unavoidable spills of oil or other adverse substances or materials will be covered or removed immediately during drilling progress or during completion operations.

(4) Any sewage will be covered or removed.

(5) Garbage, wastes and non-flammable wastes, salts and other chemicals produced or used during drilling or testing will be handled in the reserve pit or kept in the trash or burn pit. The trash or burn pit will be covered with small wire mesh to prevent scattering.

(6) The reserve pit, in addition to the trash or burn pit, will be fenced on three sides during drilling operations, and iron or other posts and wire fencing will be available on each location immediately upon cessation of drilling and the fourth side of the reserve pit will be fenced prior to full removal of the rig from the location. Any other dangerous or harmful pits or sewage areas will also be fenced or covered at the time rig moved off location.

8. Ancillary Facilities

No airstrips, camps, or other living facilities will be built or needed.

9. Well Site Layout

(1) Exhibit "G", 1 through 5, are the drill pad layouts as staked by Powers Elevation Company. The elevation contours have been drawn on these plats by Beathard. The cut and fill cross section for each location is designated A-A' and location has been constructed from these contours. The top 6 inches of soil will be stockpiled as shown on each plat. The location of the excess material removed during the drill pad preparation is also shown on each plat.

(2) The mud tanks, pits, rig orientation, etc. for all five wells are Exhibit "H". If the wells are drilled by air, these facilities may change accordingly.

(3) Exhibit "H", also shows the rig orientation, parking areas and access roads for each location.

(4) The reserve pit will not be lined. Steel mud pits, if used, will be as shown in Exhibit "H".

10. Plans for Restoration

(1) Backfilling, leveling and contouring will be accomplished as soon as possible after plugging of each well, or immediately on those areas unused if production is obtained. Waste disposal and spoils materials will be buried or hauled away immediately before rig moves off location.

(2) Rehabilitation will be accomplished by spreading the banked topsoil over the area and contouring the banks that will be created in this heavily eroded area so that vegetation planted will be best protected from erosion. Revegetation will be accomplished using grasses or mixtures suited best for the dry, arid conditions encountered here. The access roads will be revegetated as needed.

10. Plans for Restoration Cont'd

(3) Prior to rig release, the fourth side of the reserve pit at each drill site will be fenced and maintained until clean up operations are finished.

(4) Any oil or spills will be immediately cleaned up or flagged.

(5) Rehabilitation operations will commence as soon as the rig moves off location. However, revegetation will be delayed until the fall of 1977 or the spring of 1978 for optimum growth potential.

11. Other Information

These development wells are located on the northwestern edge of the Grand Valley at the foot of the Book Cliffs. The topography of the immediate area grades from flat prairie to gullied hills, steepening with increasing proximity to the Cliffs. Long, narrow canyons, the majority of which carry only intermittent stream flow, form the chief topographic features of the Book Cliffs. This area receives very little annual precipitation; however, as this area is located at the mouth of Hay Canyon, it is subject to flash flooding.

The canyon bottoms and adjacent flatlands are composed predominantly of alluvial and colluvial material consisting of poorly sorted boulders, gravel, sand and silt. The soil on all locations is a sandy, silty clay formed from this material and is primarily derived from the Cretaceous Mancos Shale and the resistant Cretaceous and Tertiary sands forming the cliffs (refer to Item 1 of Exhibit "B").

The Flora at all five locations is identical and consists of sagebrush, tumbleweed, cactus, bunch grass and other sparse grasses, and occasionally Pinyon Pine and Juniper. The vegetation constitutes approximately 40-70% of the ground cover. The remaining exposed soil material is highly erodible. The observed animal population is

12. Lessee's or Operator's Representative Cont'd

Phil Herrington
The Anschutz Corporation, Inc.
1110 Denver Club Building
Denver, Colorado 80202

Phone: (303) 573-5665
Res: (303) 494-0576

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by The Anschutz Corporation, Inc. and its contractors and sub-contractors in conformity with this plan and their terms and conditions under which it is approved.

Date: June 1, 1977

George H. Fentress

Name: George H. Fentress
Title: Agent Consultant for
The Anschutz Corporation

EXHIBIT "E"

Access Road to Anschutz Corporation

#2 Federal 258

#3 Federal 258

#4 Federal 258

#5 Federal 258

#1 Federal 350

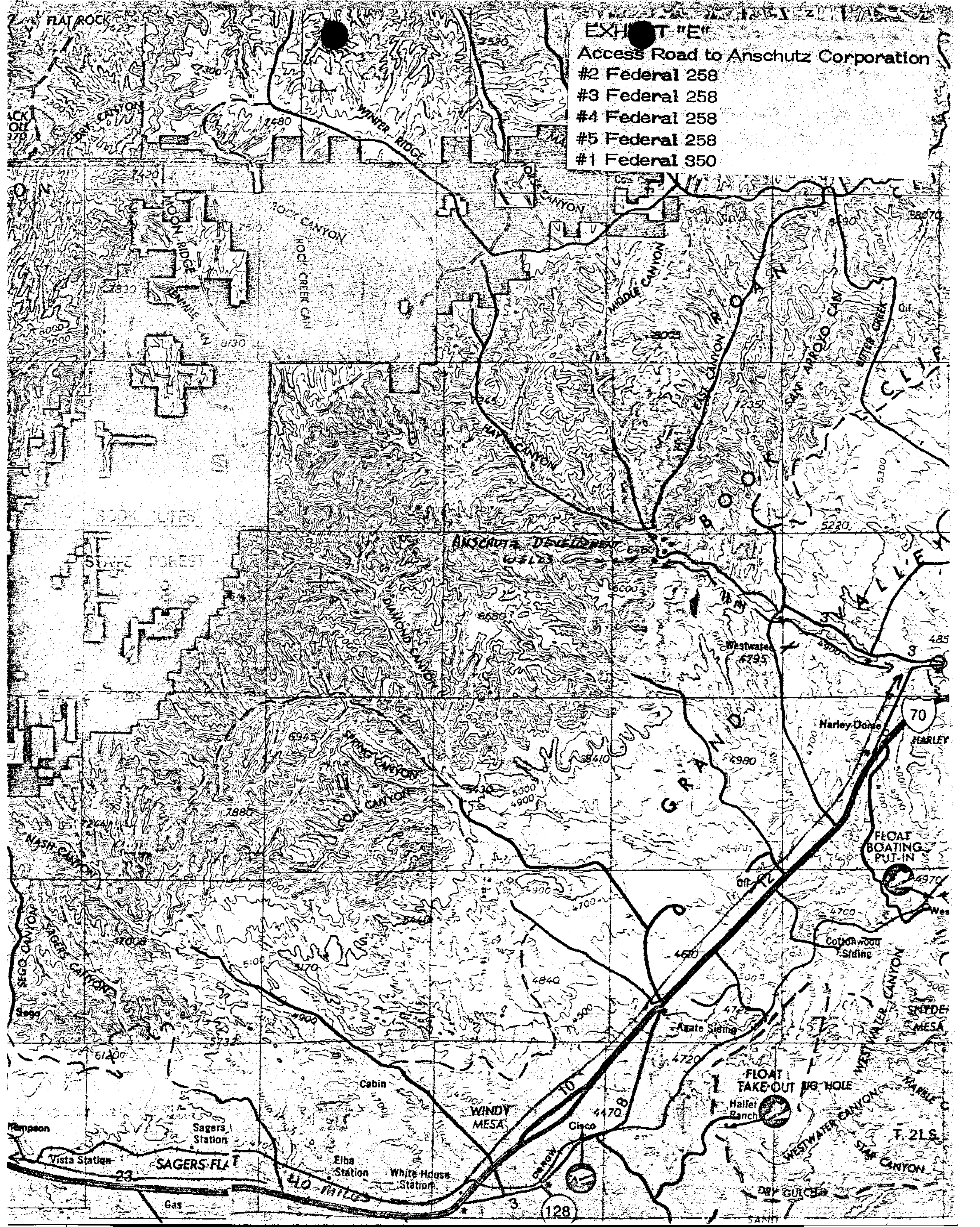


EXHIBIT "F"

Topographic Map with one mile radius

Anschutz Corporation

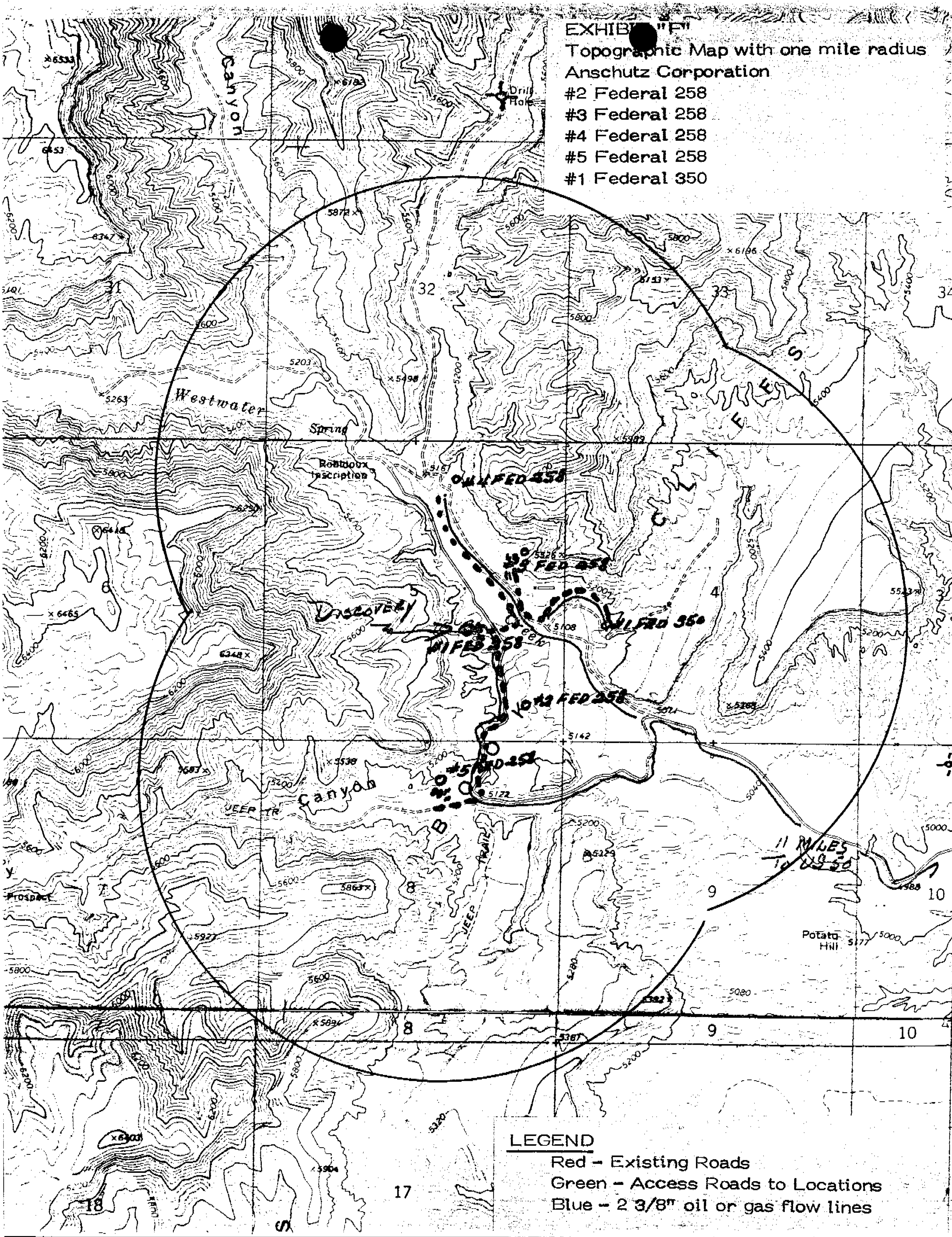
#2 Federal 258

#3 Federal 258

#4 Federal 258

#5 Federal 258

#1 Federal 350



LEGEND

Red - Existing Roads

Green - Access Roads to Locations

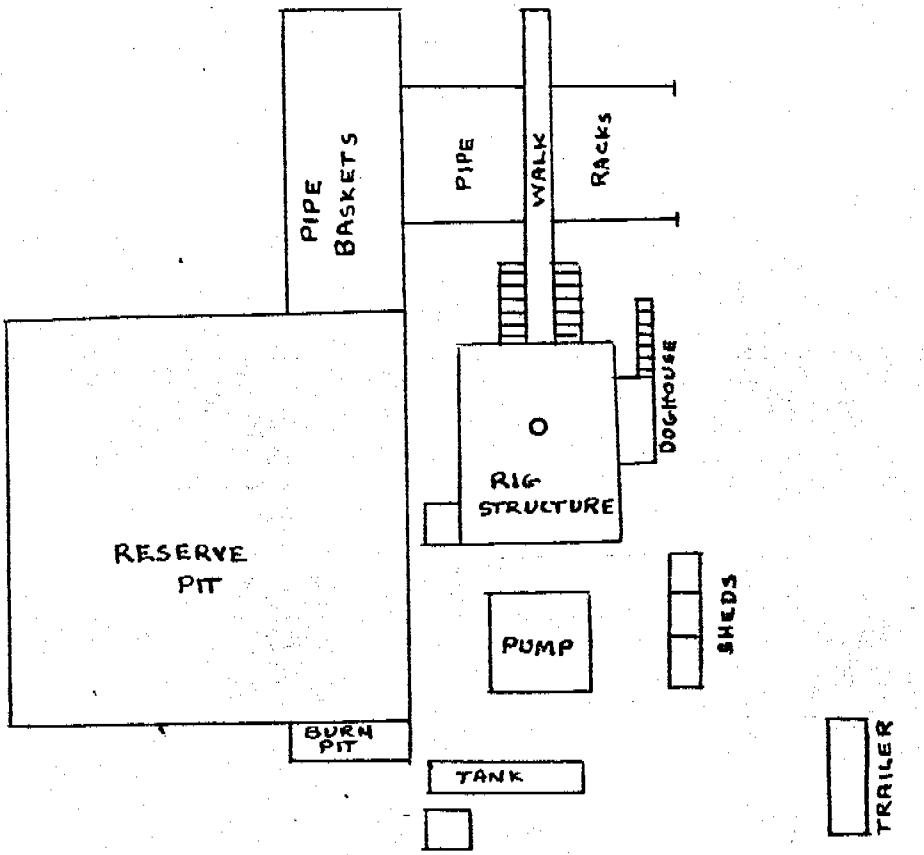
Blue - 2 3/8" oil or gas flow lines

EXHIBIT "H"

SIMPLIFIED RIG LAYOUT

SMALL LOCATION

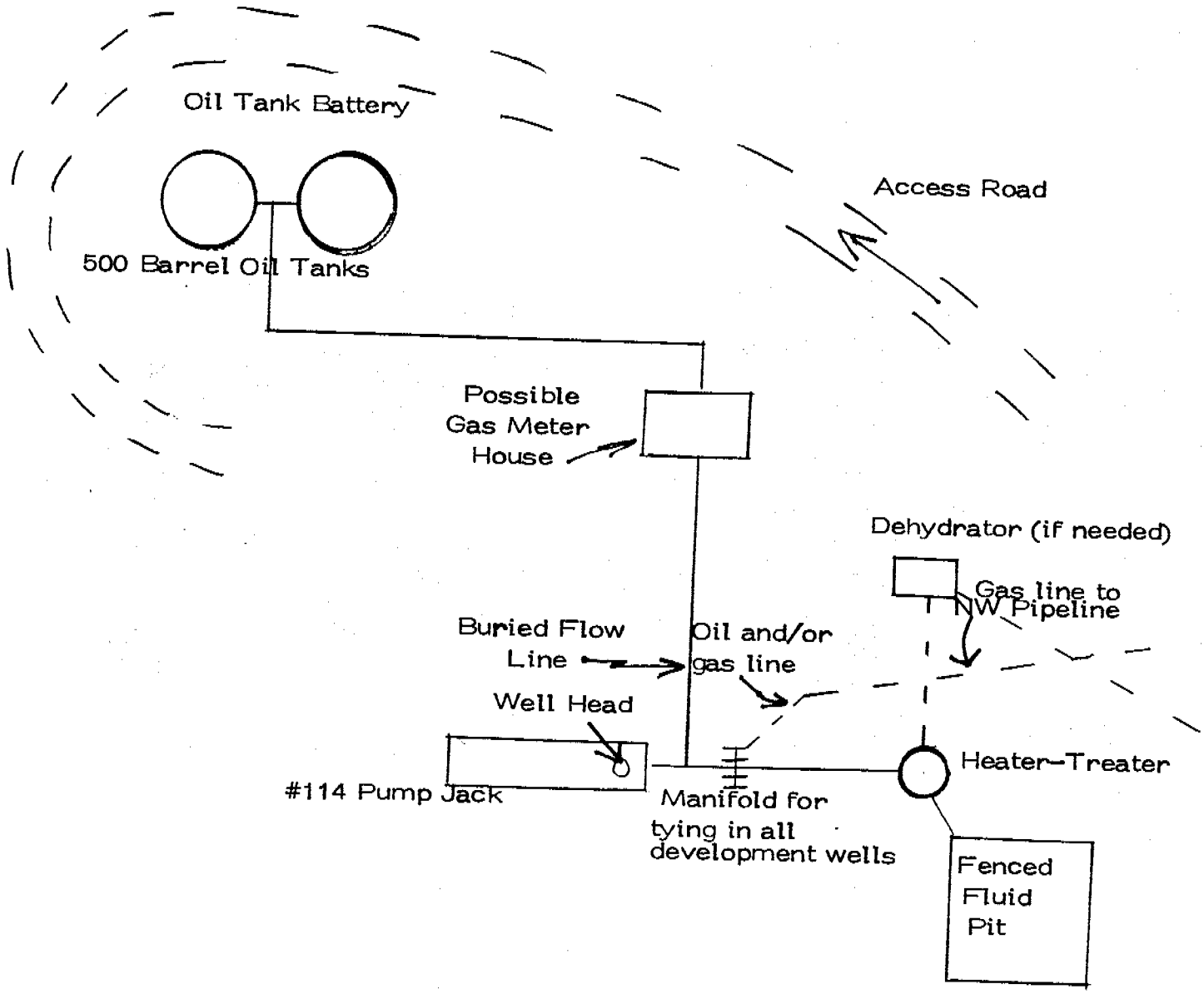
For Each of 5 – Anschutz
Development Wells



1. Rig will be oriented on drill pad as best suited for pits and topography

2. Each drill pad is immediately off of existing roads except #3 – Fed – 258 (See Exhibit "F" for its access)

EXHIBIT "I"
Central Production Battery
Located on #1 Federal 258
NW SE Sec. 5, T18S-R24E



ALL LINES ARE PLANNED TO BE 2 3/8" O.D.

STATE OF UTAH
DIVISION OF OIL, GAS, AND MINING

** FILE NOTATIONS **

Date: June 6-

Operator: Amerada Hess Corp.

Well No: #5 Fed. 258

Location: Sec. 8 T. 18S R. 24E County: Grand

File Prepared [✓] Entered on N.I.D. [✓]

Card Indexed [✓] Completion Sheet [✓]

CHECKED BY:

Administrative Assistant: SW

Remarks: OK - No other wells in Sec. 8 -

Petroleum Engineer: OK FB

Remarks:

Director: 7

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required: ~~OK~~ Fed.

Order No. [ ] Survey Plat Required [ ]

Surface Casing Change to [ ]

Rule C-3(c), Topographic exception/company owns or controls acreage within a 660' radius of proposed site [ ]

O.K. Rule C-3 [X] O.K. In [ ] Unit [ ]

Other:

[✓] Letter Written/~~Approved~~

June 6, 1977

The Anschutz Corporation
c/o Mr. George H. Fentress
1645 Court Place
Suite 229
Denver, Colorado 80202

Re:

Well No's:	API NO.
#2 Federal 258	43-019-30361
#3 Federal 258	43-019-30362
#4 Federal 258	43-019-30363
#5 Federal 258	43-019-30364
#1 Federal 350	43-019-30365

Grand County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to wells is hereby granted in accordance with Rule C-3, General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon these wells, you are hereby requested to immediately notify the following:

PATRICK L. DRISCOLL - Chief Petroleum Engineer
HOME: 582-7247
OFFICE: 533-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling.

Further, it is requested that this Division be notified within 24 hours after drilling operations have commenced, and that the rig number and drilling contractor be identified.

The API numbers assigned to these wells are indicated above.

Very truly yours,

CLEON B. FEIGHT
Director

cc: U.S. Geological Survey

U.S. GEOLOGICAL SURVEY, CONSERVATION DIVISION

FROM: DISTRICT GEOLOGIST, SALT LAKE CITY, UTAH

TO: DISTRICT ENGINEER, SALT LAKE CITY, UTAH

Well	Location	Lease No.
ANSCHUTZ CORPORATION, INC. #5 FEDERAL 358	2035' FEL & 653' FNL (NW¼NE¼) SEC. 8, T. 18 S., R. 24 E., SLM GRAND CO. UTAH GR. EL. 5147'	U-14358

1. Stratigraphy and Potential Oil and Gas Horizons. The well will commence in the Castlegate Sandstone member of the Price River Formation of the Mesaverde group. The operator plans to test the Dakota, Cedar Mountain and Morrison Formations for oil and natural gas. Estimated tops by operator are reasonable.

2. Fresh Water Sands. Usable water may occur in the Castlegate Sandstone and Mancos sands (Ferron). The aquifers of deeper formations will probably yield salty water or brine.

3. Other Mineral Bearing Formations. (Coal, Oil Shale, Potash, Etc.) Considered prospectively valuable for coal but at this location well will spud stratigraphically below the major coal zones of the Price River Formation which outcrop nearby.

4. Possible Lost Circulation Zones.

Unknown

5. Other Horizons Which May Need Special Mud, Casing, or Cementing Programs.

Protect any fresh water aquifers penetrated.

6. Possible Abnormal Pressure Zones and Temperature Gradients.

Unknown

7. Competency of Beds at Proposed Casing Setting Points.

Probably adequate.

8. Additional Logs or Samples Needed.

None

9. References and Remarks Within 5 mile radius of KGS, U.S.G.S. Bull. 852, Fisher, 1936

Date: 6-21-77 Signed: REG.

Utah State Oil & Gas

ATTACHMENT 2-A

SUMMARY OF ENVIRONMENTAL IMPACT EVALUATION

EIA NO. 553

DATE 7/5/77

OPERATOR Anschutz
LEASE # U-14258
WELL NO. #5 Federal 258
LOC. ¼ NW ¼ NE SEC. 8
T. 18S R. 24E
COUNTY Grand STATE Ut.
FIELD New
USGS Cook
BLM Crunett
REP: Copper
DIRT

- [O] ENHANCES
- [ ] NO IMPACT
- [/] MINOR IMPACT
- [X] MAJOR IMPACT

			Construction				Pollution				Drilling Production						Transport Operations			Accidents		Others
			Roads, bridges, airports	Transmission lines, pipelines	Dams & impoundments	Others (pump stations, compressor stations, etc.)	Burning, noise, junk disposal	Liquid effluent discharge	Subsurface disposal	Others (toxic gases, noxious gas, etc.)	Well drilling	Fluid removal (Prod. wells, facilities)	Secondary Recovery	Noise or obstruction of scenic views	Mineral processing (ext. facilities)	Others	Trucks	Pipelines	Others	Spills and leaks	Operational failure	
Land Use	Forestry	N.A.																				
	Grazing	✓	/		/		/	/			/			/			/			/	/	
	Wilderness	N.A.																				
	Agriculture	N.A.																				
	Residential-Commercial	NA																				
	Mineral Extraction	N.A.																				
	Recreation	✓	0		/		/	/			/			/			/			/	/	
	Scenic Views	✓	/		/		/	/			/			/			/			/	/	
	Parks, Reserves, Monuments	N.A.																				
	Historical Sites	None known																				
	Unique Physical Features	N.A.																				
Flora & Fauna	Birds	✓	/		/		/	/			/			/			/			/	/	
	Land Animals	✓	/		/		/	/			/			/			/			/	/	
	Fish	NA																				
	Endangered Species	None known																				
	Trees, Grass, Etc.	✓	/		/		/	/			/						/			/	/	
Phy. Charact.	Surface Water	N.A.																				
	Underground Water	?																				
	Air Quality	✓					/				/						/					
	Erosion	✓	/		/		/	/			/						/			/	/	
	Other																					
	Effect On Local Economy	✓	0		0						0						0					
	Safety & Health	✓	/		/		/	/			/						/			/	/	

Others Org - File
cc: Reg - Denver w/o matter
Ben - Mech w/o matter
State Oil & Gas ✓

EIA NO. 553

LEASE U IH 258 DATE 2/5/22

WELL NO. #5 Fed. 258

LOCATION: NW ¼ NE ¼, SEC. 8 T. 18S R. 24E

FIELD New COUNTY Grand STATE Utah

ENVIRONMENTAL IMPACT ANALYSIS - ATTACHMENT 2-B

I. PROPOSED ACTION

Anschutz Corporation (COMPANY) PROPOSES TO DRILL AN OIL AND GAS TEST WELL WITH ROTARY TOOLS TO ABOUT 4220 FT. TD. 2) TO CONSTRUCT A DRILL PAD 725 FT. X 230 FT. AND A RESERVE PIT 50 FT. X 100 FT. 3) TO CONSTRUCT 16 FT. WIDE X 100 ~~MILES ACCESS~~ ft ROAD AND UPGRADE FT. WIDE X MILES ACCESS ROAD FROM AN EXISTING AND IMPROVED ROAD. TO Construct

[x] GAS [ ] OIL PRODUCTION FACILITIES ON THE DISTURBED AREA FOR THE DRILL PAD AND [ ] TRUCK [ ] TRANSPORT ~~THE PRODUCTION THROUGH A PIPELINE TO A TIE-IN IN SECTION , T. , R.~~

2. LOCATION AND NATURAL SETTING (EXISTING ENVIRONMENTAL SITUATION).

(1) TOPOGRAPHY: [ ] ROLLING HILLS [ ] DISSECTED TOPOGRAPHY [·] DESSERT OR PLAINS [x] STEEP CANYON SIDES [x] NARROW CANYON FLOORS [x] DEEP DRAINAGE IN AREA [ ] SURFACE WATER

(2) VEGETATION: [x] SAGEBRUSH [ ] PINION-JUNIPER [ ] PINE/FIR [ ] FARMLAND (CULTIVATED) [x] NATIVE GRASSES [ ] OTHER Native brush

(3) WILDLIFE: [✓] DEER [ ] ANTELOPE [ ] ELK [ ] BEAR [✓] SMALL MAMMAL [✓] BIRDS [ ] ENDANGERED SPECIES [ ] OTHER _____

(4) LAND USE: [✓] RECREATION [✓] LIVESTOCK GRAZING [ ] AGRICULTURE [ ] MINING [ ] INDUSTRIAL [ ] RESIDENTIAL [✓] OIL & GAS OPERATIONS

REF: BLM UMBRELLA EAR Oil & Gas Leasing Program
~~USFS EAR~~ Grand Resource Area 8-13-75
~~OTHER ENVIRONMENTAL ANALYSIS~~

3. Effects on Environment by Proposed Action (potential impact)

1) EXHAUST EMISSIONS FROM THE DRILLING RIG POWER UNITS AND SUPPORT TRAFFIC ENGINES WOULD ADD MINOR POLLUTION TO THE ATMOSPHERE IN THE LOCAL VICINITY.

2) MINOR INDUCED AND ACCELERATED EROSION POTENTIAL DUE TO SURFACE DISTURBANCE AND SUPPORT TRAFFIC USE.

3) MINOR VISUAL IMPACTS FOR A SHORT TERM DUE TO OPERATIONAL EQUIPMENT AND SURFACE DISTURBANCE.

4) TEMPORARY DISTURBANCE OF WILDLIFE AND LIVESTOCK.

5) MINOR DISTRACTION FROM AESTHETICS FOR SHORT TERM.

6)

4. Alternatives to the Proposed Action

1) NOT APPROVING THE PROPOSED PERMIT -- THE OIL AND GAS LEASE GRANTS THE LESSEE EXCLUSIVE RIGHT TO DRILL FOR, MINE, EXTRACT, REMOVE AND DISPOSE OF ALL OIL AND GAS DEPOSITS.

2) DENY THE PROPOSED PERMIT AND SUGGEST AN ALTERNATE LOCATION TO MINIMIZE ENVIRONMENTAL IMPACTS. NO ALTERNATE LOCATION ON THIS LEASE WOULD JUSTIFY THIS ACTION.

3) LOCATION WAS MOVED _____ TO AVOID _____

☐ LARGE SIDEHILL CUTS ☐ NATURAL DRAINAGE ☐ OTHER _____

4) _____

5. Adverse Environmental Effects Which Cannot Be Avoided

1) MINOR AIR POLLUTION DUE TO EXHAUST EMISSIONS FROM RIG ENGINES AND SUPPORT TRAFFIC ENGINES.

2) MINOR INDUCED AND ACCELERATED EROSION POTENTIAL DUE TO SURFACE DISTURBANCE AND SUPPORT TRAFFIC USE.

3) MINOR AND TEMPORARY DISTURBANCE OF WILDLIFE.

4) TEMPORARY DISTURBANCE OF LIVESTOCK.

5) MINOR AND SHORT-TERM VISUAL IMPACTS.

6) _____

6. DETERMINATION:

(THIS REQUESTED ACTION ~~(DOES)~~ (DOES NOT) CONSTITUTE A MAJOR FEDERAL ACTION SIGNIFICANTLY AFFECTING THE ENVIRONMENT IN THE SENSE OF NEPA, SECTION 102(2) (C).

DATE INSPECTED 7/5/77

INSPECTOR F. R. Cook

U. S. GEOLOGICAL SURVEY
CONSERVATION DIVISION - OIL & GAS OPERATIONS
SALT LAKE CITY DISTRICT

THE ANSCHUTZ CORPORATION

1110 DENVER CLUB BUILDING
518 SEVENTEENTH STREET
DENVER, COLORADO 80202
TELEPHONE 303—573-5665
TWX 910 931 2620

July 21, 1978

Mr. Edgar Guynn
District Engineer
U. S. Geological Survey
8426 Federal Building
Salt Lake City, Utah 84138

Re: Federal 258 No. 5
2035'FEL 653'FNL Sec.8, T18S, R24E
Grand County, Utah

Dear Mr. Guynn:

We wish to submit plugging forms, completion report, and a preliminary copy of the core analysis on the above referenced location. The logs on this well will come to you under a separate cover.

If you have any questions, please call.

Thank you.

Cordially,

Peter B. Doty
Operations Coordinator

PBD/kak
Enclosures

cc: Oil and Gas Conservation Commission

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

RECEIVED
JUL 25 1978
DIVISION OF OIL, GAS, & MINING

5. LEASE DESIGNATION AND SERIAL NO.: U-14258

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Federal 258

9. WELL NO.: 5

10. FIELD AND POOL, OR WILDCAT: Unnamed

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 8, T 18S, R 24E

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: The Anschutz Corporation

3. ADDRESS OF OPERATOR: 1110 Denver Club Bldg, Denver, Colorado 80202

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 2035'FEL, 653'FNL
At top prod. interval reported below
At total depth

14. API NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
43-01930364	6-6-77	Grand	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
6-26-78	7-5-78	P&A 7-7-78	5147 GR 5157 KB	5147'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
4419			→	Surface-TD	None

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: None

25. WAS DIRECTIONAL SURVEY MADE: Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: DIL, CN/FD

27. WAS WELL CORED: Yes

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
7-5/8	26	224'	9-7/8	To Surface	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (*Interval, size and number*)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS: Core Analysis (logs will be sent under separate cover)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Peter B. Doty TITLE Operations Coordinator DATE 7-21-78

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Dakota	3587	3676	Shaley Sands
Cedar Mtn.	3676	3742	Wet Sands
Morrison	3742	4210	Shale
Summerville	4210	4382	Shale
Entrada	4382	TD	Wet Sand
Cored Interval Dakota	See Attached		

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Dakota Silt	3525	+1622
Dakota	3587	+1560
Cedar Mtn.	3742	+1405
Entrada	4382	+ 765

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-683636

GP O 870-401

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN [illegible]LICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42 R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☐ OTHER Dry Hole

2. NAME OF OPERATOR
The Anschutz Corporation

3. ADDRESS OF OPERATOR
1110 Denver Club Bldg., Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
2035' FEL, 653' FNL

5. LEASE DESIGNATION AND SERIAL NO.
U-14258

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Federal 258

9. WELL NO.
5

10. FIELD AND POOL, OR WILDCAT
Unnamed

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 8, T 18S, R 24E

14. API NO.
43-019-30364

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5147 GR 5157 KB

12. COUNTY OR PARISH
Grand

13. STATE
Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☒
REPAIR WELL	☐	CHANGE PLANS	☐				
(Other)				(Other)			

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

This well was drilled to a T.D. of 4419' KB through the Entrada Formation. Electrical logs were run to T.D. No potential pay zones were indicated on the logs. This well was cored from 3735'KB to 3765'KB. No hydrocarbons were present in the core sample. Verbal approval to plug and abandon this well was given by W.P. Martens on July 6, 1978. This well was plugged and abandoned on July 7, 1978 with plugs set as follows:

Depth	Cement
4200 - 4100	20 sks
2500 - 2400	20 sks
1600 - 1500	20 sks
275 - 175	20 sks
Surface	10 sks

Restoration of this location will commence ± August 15, 1978

18. I hereby certify that the foregoing is true and correct

SIGNED Peter B. Doty TITLE Operations Coordinator DATE 7-21-78

(This space for Federal or State office use)

APPROVED BY [signature] TITLE FOR E. W. GUYNN DISTRICT ENGINEER DATE SEP 02 1981

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Utah State O.L & G.A.S.

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS

RECEIVED
JUL 11 1978

THE ANSCHUTZ CORPORATION
NO. 5 FEDERAL 258
UN-NAMED FIELD
GRAND COUNTY

FORMATION : DAKOTA
DRLG. FLUID: AIR-MIST
LOCATION : NW NE SEC. 8 T18S R24E
STATE : UTAH

DATE : 7-5-78
FILE NO. : RP-2-5635
ANALYSTS : RM; SS
ELEVATION: 5147 GL

CONVENTIONAL CORE ANALYSIS

PRELIMINARY COPY

SAMP. NO.	DEPTH	PERM. TO AIR (MD) HORZ.	VERTICAL	POR. FLD.	FLUID SATS. OIL	WATER	GR. DNS.	DESCRIPTION
1	3735-36	2.3	3.0	13.1	0.0	20.0		SD WH MED CLY
2	3736-37	0.69	0.87	13.7	0.0	11.9		SD WH FN CLY CARB
3	3737-38	5.7	9.5	13.8	0.0	21.5		SD WH FN CLY
4	3738-39	0.52	0.38	16.1	0.0	52.4		SD WH FN V/CLY
5	3739-40	0.65	0.62	15.9	0.0	39.0		SD WH FN V/CLY
6	3740-41	3.1	16	20.8	0.0	42.4	VF	SD WH MED V/CLY
7	3741-42	5.4	0.11	14.4	0.0	39.0	VF	SD WH CSE CLY CONGL
8	3742-43	1.1	0.71	13.6	0.0	49.8		SD WH MED V/CLY
9	3743-44	12	23	11.3	0.0	13.3	VF	SD WH FN CLY
10	3744-45	9.1	17	10.5	0.0	18.3		SD WH FN CLY
11	3745-46	0.18	0.12	7.4	0.0	16.2		SD WH VFG CLY
12	3746-47	0.07	0.05	12.7	0.0	50.1		SD WH VFG CLY
13	3747-48	0.11	0.04	9.5	0.0	14.3		SD WH FN CLY
	3748-3765							SHALE--NO ANALYSIS

VF = VERTICAL FRACTURE